IN THE CLAIMS

The following claims are pending in the present application:

1. (Original) A method of constructing an electronic assembly, comprising:

forming a removable solder mask partially over at least a first of a plurality of conductive contact pads of a first substrate, the removable solder mask leaving a plurality of lands of the first conductive contact pad exposed;

attaching a plurality of solder balls to the conductive contact pads, a subset of the solder balls being attached to the respective lands;

removing the removable solder mask;

locating the solder balls against bond pads of a second substrate; and

reflowing the solder balls against the bond pads by heating and subsequently allowing the solder balls to cool, the solder balls of the subset reflowing together after being heated to form a continuous contact after cooling down.

2. (Original) The method of claim 1, further comprising:

forming a permanent solder mask on the first substrate which defines the conductive contact pads, the permanent solder mask remaining on the substrate when the removable solder mask is removed.

3. (Original) The method of claim 2, wherein the removable solder mask is removed before the solder balls are located against the bond pads.

4. (Original) A method of constructing an electronic assembly, comprising:

forming a removable solder mask partially over a conductive power contact pad, of a first substrate, the solder mask leaving a plurality of lands of the conductive power contact pad exposed;

attaching a plurality of power solder balls to the conductive power contact pad and a plurality of signal solder balls to conductive signal contact pads of the first substrate, the power solder balls being spaced from one another by a first distance and the signal solder balls being spaced from one another by a second distance which is larger than the first distance;

removing the removable solder mask;

locating the solder balls against terminals of a second substrate;

heating the solder balls so that they melt, the power solder balls combining with one another while the signal solder balls remain disconnected from one another; and

allowing the solder balls to cool so that they solidify.

5. (Original) The method of claim 4, wherein one power solder ball has the same mass as one signal solder ball.

6. (Original) The method of claim 4, wherein the solder balls include a plurality of ground solder balls spaced from one another by a distance which is

less than the second distance, the ground solder balls combining with one another.

7. (Original) The method of claim 6, wherein the power and ground solder balls form power and ground solder bumps located directly adjacent one another and have lengths extending substantially parallel to one another so as to have surfaces facing one another to form a capacitor.

8. (Original) The method of claim 7, comprising a plurality of power bumps and ground bumps alternating with one another to form a plurality of capacitors.

9. (Original) The method of claim 4, wherein the power solder balls before reflow are denser than the signal solder balls.

10. (Original) The method of claim 9, wherein the mass of one power solder ball substantially equals the mass of one signal solder ball.

11. (Original) A method of constructing an electronic assembly, comprising:

forming a removable solder mask partially over a conductive power contact pad and partially over a conductive ground contact pad of a first substrate, the solder mask leaving a plurality of lands of the conductive power contact pad exposed and leaving a plurality of lands of the conductive ground

contact exposed;

attaching a plurality of power solder balls to the conductive power contact pad, a plurality of ground solder balls to the conductive ground contact pad, and a plurality of signal solder balls to conductive signal contact pads of the first substrate, the power solder balls and ground solder balls being spaced from one another by a first distance and the signal solder balls being spaced from one another by a second distance which is larger than the first distance;

removing the removable solder mask;

locating the solder balls against terminals of a second substrate;

heating the solder balls so that they melt, the power solder balls combining with one another and the ground solder balls combining with one another while the signal solder balls remain disconnected from one another; and

allowing the solder balls to cool so that they solidify.

12. (Original) The method of claim 11, wherein the removable solder mask is removed before the solder balls are located against the terminals of the second substrate.

13. (Original) The method of claim 11, wherein one power solder ball has the same mass as one signal solder ball.

14. (Original) The method of claim 11, wherein the power and ground solder

balls form power and ground solder bumps located directly adjacent one another and have lengths extending substantially parallel to one another so as to have surfaces facing one another to form a capacitor.

15. (Original) The method of claim 14, comprising a plurality of power bumps and ground bumps alternating with one another to form a plurality of capacitors.